

Title (en)
PISTON OF INTERNAL COMBUSTION ENGINE

Title (de)
KOLBEN EINES VERBRENNUNGSMOTORS

Title (fr)
PISTON D'UN MOTEUR À COMBUSTION INTERNE

Publication
EP 2184477 B1 20130417 (EN)

Application
EP 08751771 A 20080520

Priority
• JP 2008001253 W 20080520
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Abstract (en)
[origin: EP2184477A1] To provide a piston for an internal combustion engine including a skirt which causes a relatively small frictional resistance and can maintain a favorable frictional property over an extended period of time. In a piston for an internal combustion engine having a skirt 4 on whose sliding surface a resin coating layer is deposited, the skirt 4 comprises a thin walled portion 51 located in a circumferentially middle part thereof and a pair of thick walled portions 52 provided on either lateral side of the thin walled portion 51. The resin coating layer 44 at least in the part thereof deposited on the thick walled portions 52 is formed with a plurality of dimples 45. The skirt may comprise a skirt main body 41 extending axially at a fixed distance from the central axial line of the piston in an axially middle part thereof, and a first reduced diameter portion 42 depending from the lower end of the skirt main body and having a progressively smaller diameter toward a lower end thereof. The dimples 45 may be arranged along a first boundary 6 between the skirt main body and first reduced diameter portion.

IPC 8 full level
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CPC (source: EP US)
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Citation (examination)
SWEETHAVEN PUBLISHING SERVICES: "Piston Assembly", 31 December 2004 (2004-12-31), Retrieved from the Internet <URL:http://www.waybuilder.net/sweethaven/MechTech/Automotive01/default.asp?unNum=2&lesNum=3&modNum=1> [retrieved on 20120214]

Cited by
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